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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,387	12/21/2001	Timo J. Salo	RSW920010207US1	1045

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EXAMINER	
LY, ANH	

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,387	SALO ET AL.	
	Examiner	Art Unit	
	Anh Ly	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,8 and 11* is/are rejected.

7)☐ Claim(s) *2-4, 6-7 and 9-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to Applicants' RESPONSE 02/10/2006.

2. Claims 1-11 are pending in this Application.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101: Because claim 1 is lacking an appropriate **storage medium** and a **data structure (an example of functional descriptive material, per se) within an environment is being** claimed, data structure within an object persistence management system, and in the body of claim, all is non-functional descriptive materials, except a functional descriptive material, "managing said junction table". This functional descriptive material is not a manipulation function.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: **Claim 8**, "**a machine readable storage**" (see MPEP: Rule: 1.75 (D) (1): The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a))).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 5 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 5,717,924 issued to Kawai in view of Pub. No.: US 2004/0243605 A1 of Bernstein et al. (hereinafter Bernstein).

With respect to claim 1, Kawai teaches a plurality of related objects (fig. 5, related objects are tables such BOOK table and AUTHOR table having a linking table or a third table, AUTHOR-BOOK table having a key pair such as SURROGATE KEY and ISBN; primary key of this table is (SURGOGATER KEY, ISBN), wherein SURROTE KEY is foreign key to SURROGATE KEY of AUTHOR table; ISBN is foreign key to ISBN of BOOK table); and

a plurality of corresponding decentralized links (enabling user to manipulate the link or the related object such as changing, modifying or deleting or adding the relationships related objects in the object model: col. 4, lines 5-10 and col. 6, lines 6-67), each said link corresponding to one of said objects, each said link persisting state information for said corresponding object in an associated object table, (fig. 12, relationships or links corresponding to one table to another table and managing of changing relationships with tables: col. 4, lines 8-12, col. 6, lines 6-20 and lines 28-36; also see col. 17, lines 52-67 and col. 18, lines 1-15).

Kawai teaches data migration management in many-to-many relationship between tables or related objects in the relational database system and reflecting the change relationships of the related objects (see fig. 5 and fig 12). Also Kawai teaches a third temporary table includes the primary key of source table as foreign key of the third temporary table and a surrogate key value that form the primary key of the third temporary table as a kind of junction table using for changing relationships of objects in the related tables and object links that define relationships between related object in the object model (fig. 12B and col. 3, lines 46-67). Kawai does not clearly teach managing said junction table responsive to changing relationships with others of said related objects.

However, Bernstein teaches manipulating/changing on the relationships of related objects (sections 0009, 0013, 0027, 0051 and 0110).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kawai with the teachings

of Bernstein. One having ordinary skill in the art would have found it motivated to utilize the use of managing/changing the relationships of related objects by adding or removing the link/relationship of objects as disclosed (Bernstein's sections 0051 and 0110), into the system of Kawai for the purpose of having a third temporary table stored the links or relationships between related object. The motivation being to provide relationship between objects in order to assist in object navigation, thereby, reducing the amount of time for creating or navigating from one object to another object based on relationship (Bernstein's sections 0003-0006 and 0010-0013).

With respect to claim 5, Kawai teaches detecting a relationship change with a related object (detecting modifications or the changing of related object for each table in the database: col. 2, lines 18-26); and

storing a directive in a buffer, said directive specifying a management operation for changing and said relationship in a junction table (manager object storing the operations for adding or deleting the object: col. 7, lines 35-45 and col. 17, lines 18-38).

Kawai teaches data migration management in many-to-many relationship between tables or related objects in the relational database system and reflecting the change relationships of the related objects (see fig. 5 and fig 12). Also Kawai teaches a third temporary table using for changing relationships of objects in the related tables and object links that define relationships between related object in the object model (fig. 12B and col. 3, lines 46-67). Kawai does not clearly teach searching for an opposite directive in a buffer associated with said related object and object and performing said

stored directive only if an opposite directive has not been stored in a buffer associated with said related object.

However, Bernstein teaches searching or retrieving on specific types of relationships to identify objects in the structured of related objects (sections 0008 and 0066); accessing or performing computer software for managing collections of related objects (sections 0009, 0027, 0042 and 0084).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kawai with the teachings of Bernstein. One having ordinary skill in the art would have found it motivated to utilize the use of managing/changing the relationships of related objects by adding or removing the link/relationship of objects as disclosed (Bernstein's sections 0051 and 0110), into the system of Kawai for the purpose of having a third temporary table stored the links or relationships between related object. The motivation being to provide relationship between objects in order to assist in object navigation, thereby, reducing the amount of time for creating or navigating from one object to another object based on relationship (Bernstein's sections 0003-0006 and 0010-0013).

Claim 8 is essentially the same as claim 5 except that it is directed to a machine-readable storage rather than a method, and is rejected for the same reason as applied to the claim 5 hereinabove.

With respect to claim 11, Kawai teach a machine readable storage as discussed in claim 8.

Kawai teaches data migration management in many-to-many relationship between tables or related objects in the relational database system and reflecting the change relationships of the related objects (see fig. 5 and fig 12). Also Kawai teaches a third temporary table using for changing relationships of objects in the related tables and object links that define relationships between related object in the object model (fig. 12B and col. 3, lines 46-67). Kawai does not clearly teach wherein both the directive and the corresponding opposite directive are unexpected.

However, Bernstein teaches accessing or performing computer software for managing collections of related objects (sections 0009, 0027, 0042 and 0084).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kawai with the teachings of Bernstein. One having ordinary skill in the art would have found it motivated to utilize the use of managing/changing the relationships of related objects by adding or removing the link/relationship of objects as disclosed (Bernstein's sections 0051 and 0110), into the system of Kawai for the purpose of having a third temporary table stored the links or relationships between related object. The motivation being to provide relationship between objects in order to assist in object navigation, thereby, reducing the amount of time for creating or navigating from one object to another object based on relationship (Bernstein's sections 0003-0006 and 0010-0013).

Allowable Subject Matter

8. Claims 2-4, 7-6 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV (**Written Authorization being given by Applicant (MPEP 502.03 [R-2])) or fax to (571) 273-4039 (Examiner's personal Fax No.**). The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner: Jean Corrielus (571) 272-4032**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to:

Central Fax Center: (571) 273-8300

JEAN M. CORRIELUS
PRIMARY EXAMINER

ANH LY
MAY 23rd, 2006